

## REMARKS

Claims 1-26 are pending. Claims 2-3, 11-12 and 20-21 are amended herein. No new matter is added as a result of the claim amendments. Support for the claim amendments can be found at least on page 7, lines 5-6, of the instant application.

### 102 Rejections

The instant Office Action states that Claims 1-8 and 19-25 are rejected under 35 U.S.C. § 102(e) as being anticipated by Reilly et al. (U.S. Patent No. 6,925,552; hereinafter "Reilly"). The Applicants have reviewed the cited reference and respectfully submit that the present invention as recited in Claims 1-8 and 19-25 is not anticipated by Reilly.

Applicants respectfully submit that Reilly does not anticipate the present claimed invention recited in independent Claims 1 and 19. The present claimed invention describes two different modes of speculative operation. Furthermore, as recited in Claim 1, the present claimed invention recites exiting one mode of speculative operation and entering a second mode of speculative operation, while Claim 19 recites a third mode in addition to the other two modes.

For anticipation under 35 U.S.C. § 102, Reilly must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. However, the fact that a certain characteristic may occur or be present in Reilly is not sufficient to establish the inherency of that characteristic. To establish inherency, it must be clear from Reilly that the

missing descriptive matter is necessarily present and that it would be recognized by persons of ordinary skill.

Reilly only appears to describe two types of exception handlers. Applicants respectfully submit that exception handling is quite different from speculative execution (Reilly refers to speculation as prediction). While Reilly refers to the two types of exception handlers as speculative and non-speculative, Reilly is using “speculative” only to denote that exceptions can be handled out of order. Reilly does not appear to discuss in any way what happens to speculative execution (prediction) when exceptions are being handled. Importantly, Reilly does not appear to discuss in any way that there are different modes of speculation (prediction). One cannot even determine from Reilly’s discussion whether there are different modes of speculation (prediction) associated with the different types of exception handlers.

Applicants also find no support in Reilly for the statement on page 5 of the instant Office Action, to the effect that because the non-speculative exception handler handles non-speculative exceptions, then speculative operations are suspended.

In summary, Applicants respectfully submit that one or more essential elements needed for a *prima facie* rejection of independent Claims 1 and 19 are missing. Applicants respectfully submit that Reilly does not show or suggest a first mode of speculative operation and a second mode of speculative operation as recited in Claims 1 and 19, the explicit step of exiting such a first mode and

entering such a second mode as recited in Claim 1, nor three modes of speculative operation as recited in Claim 19.

Accordingly, Applicants respectfully submit that Reilly does not show or suggest the limitations of independent Claims 1 and 19, and that the rejection of these claims under 35 U.S.C. § 102(e) is traversed. Applicants also submit that the rejection of Claims 2-8 and 20-25 under 35 U.S.C. § 102(e) is traversed, as Claims 2-8 and 20-25 are dependent on Claim 1 or 19 and recite additional limitations.

### 103 Rejections

#### Claims 9 and 26

The instant Office Action states that Claims 9 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Reilly in view of “The Transmeta Code Morphing™ Software: Using Speculation, Recovery, and Adaptive Retranslation to Address Real-Life Challenges” (hereinafter “Dehnert”). The Applicants have reviewed the cited references and respectfully submit that the present invention as recited in Claims 9 and 26 is not shown or suggested by Reilly and Dehnert, alone or in combination.

Claim 9 is dependent on independent Claim 1 and recites additional limitations, and Claim 26 is dependent on independent Claim 19 and recites additional limitations. Hence, by demonstrating that the cited references do not show or suggest the limitations of Claims 1 and 19, it is also demonstrated that the cited references do not show or suggest the limitations of Claims 9 and 26.

As presented above, Applicants respectfully submit that Reilly does not show or suggest the limitations of Claims 1 and 19. Applicants also submit that Dehnert does not overcome the shortcomings of Reilly. This latter point is acknowledged on page 9 of the instant Office Action, which states in effect that Dehnert does not disclose a partial (e.g., second) speculation mode.

Therefore, Applicants respectfully submit that Claims 1 and 19 are allowable over the cited references. Accordingly, Applicants also submit that the rejection of Claims 9 and 26 under 35 U.S.C. § 103(a) is traversed, as Claims 9 and 26 are dependent on Claims 1 and 19 and recite additional limitations.

#### Claims 10-18

The instant Office Action states that Claims 10-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Dehnert in view of Reilly. The Applicants have reviewed the cited references and respectfully submit that the present invention as recited in Claims 10-18 is not shown or suggested by Dehnert and Reilly, alone or in combination.

Applicants respectfully agree with the statement on page 9 of the instant Office Action, to the effect that Dehnert does not disclose a partial (e.g., second) speculation mode as recited in independent Claim 10. As presented above, Applicants respectfully submit that Reilly does not overcome this shortcoming of Dehnert. Specifically, as presented above, Applicants respectfully submit that Reilly, alone or in combination with Dehnert, does not show or suggest a partial speculation mode in addition to a full speculation mode, as recited in independent Claim 10.

Accordingly, Applicants respectfully submit that Dehnert and Reilly, alone or in combination, do not show or suggest the limitations of independent Claim 10, and that the rejection of Claim 10 under 35 U.S.C. § 103(a) is traversed. Applicants also submit that the rejection of Claims 11-18 under 35 U.S.C. § 103(a) is traversed, as Claims 11-18 are dependent on Claim 10 and recite additional limitations.

### Conclusions

In light of the above remarks, Applicants respectfully request reconsideration of the rejected claims. Based on the arguments presented above, Applicants respectfully assert that Claims 1-26 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these claims.

Applicants have reviewed the references cited but not relied upon, and did not find those references to show or suggest the present claimed invention.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

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Respectfully submitted,  
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